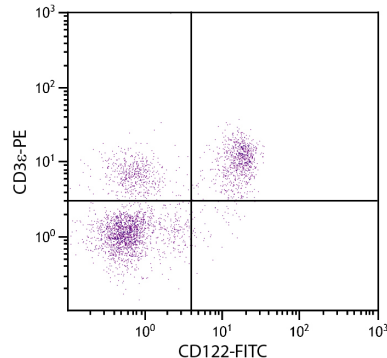




Rat Anti-Mouse CD122

Cat. No.	Format	Size
1905-01	Purified (UNLB)	0.5 mg
1905-02	Fluorescein (FITC)	0.5 mg
1905-08	Biotin (BIOT)	0.5 mg
1905-09	R-phycoerythrin (PE)	0.1 mg
1905-11	Allophycocyanin (APC)	0.1 mg
1905-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg



BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD122-FITC (SB Cat. No. 1905-02) and Rat Anti-Mouse CD3ε-PE (SB Cat. No. 1535-09).

Overview

Clone	5H4
Isotype	Rat (Lewis) IgG _{2aκ}
Immunogen	Rat myeloma YB2/0 transfected with truncated IL-2Rβ cDNA (YB2/0-mβt-28)
Specificity	Mouse CD122; 90-100 kDa
Alternate Name(s)	IL-2Rβ, IL-15 receptor β chain

Description

The IL-2 receptor is a complex of three distinct polypeptide chains: (i) the α chain which binds IL-2 with low affinity; (ii) the β chain that binds IL-2 with high affinity; and (iii) the common γ chain (γ_c) that does not bind IL-2. The high affinity receptor complex is an $\alpha/\beta/\gamma$ heterotrimer with a K_d of 1.3×10^{-11} M. In mouse spleen, CD122 is expressed on ~30% of CD8⁺ cells and all NK cells but <1% of B cells and CD4⁺ T lymphocytes. In the thymus, its expression is confined to CD4⁺CD8⁺ single positive and CD4⁺CD8⁻ double negative cells. Cytoplasmic regions of the IL-2R β chain are involved in IL-2-mediated cellular signaling and, via the interaction of IL-2 and its receptor complex, may be involved in the generation and differentiation of T lymphocytes. The monoclonal antibody 5H4 does not block IL-2 binding.

Applications

FC – Quality tested ^{1,2}
 IP – Reported in literature ^{1,2}

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	$\leq 1 \mu\text{g}/10^6$ cells
	PE and APC conjugates	$\leq 0.2 \mu\text{g}/10^6$ cells
For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL		

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of PBS. **Aliquot and store at or below -20°C.**
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Malek TR, Furse RK, Fleming ML, Fadell AJ, He Y. Biochemical identity and characterization of the mouse interleukin-2 receptor β and γ_c subunits. *J Interferon Cytokine Res.* 1995;15:447-54. (Immunogen, FC, IP)
2. Furse RK, Malek TR. Selection of internalization-deficient cells by interleukin-2-Pseudomonas exotoxin chimeric protein: the cytoplasmic domain of the interleukin-2 receptor β chain does not contribute to internalization of interleukin-2. *Eur J Immunol.* 1993;23:3181-8. (FC, IP)